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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,963

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Rolf Theo Anton Apetz

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

GOLIGHTLY, ERIC WAYNE

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

05/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,963	Applicant(s) APETZ, ROLF THEO ANTON	
	Examiner Eric Golightly	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2008 and 09 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-18 and 20-32 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 and 20-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-3,5-18 and 20-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/21/2008 has been entered.

Election/Restrictions

2. Applicant's election without traverse of claims 1-3 and 5-15 in the reply filed on 3/9/2009 is acknowledged. Claims 16-18 and 20-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

3. Claims 1-3, 5-18 and 20-32 are pending. Claims 16-18 and 20-32 are withdrawn. Claims 4 and 19 are cancelled.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1792

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/37309 to Partlo et al. (hereinafter "Partlo") in view of US 4,597,665 to Galbraith et al. (hereinafter "Galbraith").

Regarding claims 1 and 10, Partlo teaches a method of cleaning at least one surface of an optical device disposed in a vacuum chamber (abstract and page 6, lines 4-6), which device is at least partially contaminated by contaminants introduced by a radiation source (page 4, line 4-6), the method comprising the acts of: adjusting at least one of a temperature prevailing on the at least one surface in the vacuum chamber (page 9, line 9) and a pressure in the vacuum chamber (page 13, lines 21-25); and providing at least one obstacle located at a second portion of the at least one surface (page 11, lines 7-16).

Partlo does not explicitly teach that the contaminants hitting the at least one surface are removed from a first portion, that the obstacle collects the contaminants and that the at least one obstacle used includes at least one recess. Removal of the

Art Unit: 1792

contaminants would have been obvious to one of ordinary skill in the art at the time of the invention since Partlo discloses increasing the surface heat (page 9, line 9) and using low pressures (page 13, lines 21-25), which are known to promote removal of contaminants, which contaminants are collected by the obstacle (Partlo at page 11, lines 9-13). It is noted that Partlo discloses contaminants resulting from ultraviolet and x-ray radiation (page 4, lines 4-6), which are also taught as the contaminants in the present application (specification at page 1, line 4).

Partlo does not teach that the at least one obstacle used includes at least one recess. Galbraith teaches flaw detector for optically transmissive surfaces and method of use (abstract) and discloses obstacle recesses such as cracks and holes in the surfaces (col. 1, lines 10-15 and 35-39 and claim 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to collect contaminants in the holes as per the Galbraith teaching in the method as per the Partlo teaching with a reasonable expectation of success since particles become trapped in holes.

Regarding claims 2 and 3, Partlo and Galbraith disclose the method wherein the temperature of the at least one surface is set around 200°C (Partlo at page 9, line 9).

Regarding claims 5, 6 and 12, Partlo and Galbraith disclose the method wherein the obstacle further includes at least one elevation with a cylindrical shape (Partlo at Fig. 7A). Further, the skilled artisan would find the distance between the elevation and recess an obvious design choice since a too close distance would not include coverage to surface areas outside the elevation/recess region, while a too far distance would not include coverage to surface area within the elevation/recess region.

Regarding claim 7, Partlo and Galbraith disclose the method wherein the elevation is arranged so as to run approximately or fully parallel with rays emitted from the radiation source along the at least one surface. Partlo at Figs. 7 and 7B).

Regarding claim 8, Partlo and Galbraith disclose the method wherein the elevation includes nickel and further material configured to promote formation of accumulations of the contaminants (Partlo at page 11, line 16).

Regarding claims 9 and 11, the recess of the Partlo/Galbraith teachings may be formed by a CVD or photochemical process or laser treatment, though the patentability of the present application does not depend on the method of producing the holes. See MPEP 2113.

Regarding claim 13, Partlo and Galbraith do not explicitly teach using a chemical process to remove contaminants. However, use of chemical processes to remove contaminants is known in the art and the skilled artisan would find it obvious to include use of a chemical process to remove contaminants with a reasonable expectation of success. It is noted that use of a chemical process to remove contaminants is not disclosed as critical in the present application.

Regarding claims 14 and 15, Partlo and Galbraith disclose the method wherein the surface is provided with a coating, but do not explicitly teach the thickness of the coating. However, the skilled artisan would have found it obvious to minimize the thickness of the coating, including to below 0.5 nm, in order to conserve the coating material.

Response to Amendment

7. In view of the amendments, the 35 USC § 112 rejections are withdrawn.

Response to Arguments

8. With respect to the specification headings, as noted in the Advisory Action mailed on 6/12/2008, applicant's arguments are found to be persuasive and no objection is maintained. Applicant is reminded that it is highly advisable to add headings to the specification.

9. Applicant's arguments with respect to claims 1-3 and 5-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Golightly whose telephone number is (571) 270-3715. The examiner can normally be reached on Monday to Thursday, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571) 272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EWG

/Michael Kornakov/

Supervisory Patent Examiner, Art Unit 1792